

U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
Raritan Bay Slag Site - Remedial - Removal Polrep



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region II

Subject: POLREP #16
Progress
Raritan Bay Slag Site - Remedial
A205
Old Bridge, NJ
Latitude: 40.4543218 Longitude: -74.2381070

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Date: 12/5/2017

Reporting Period: November 27, 2017 through December 1, 2017

1. Introduction

1.1 Background

Site Number:	A205	Contract Number:	EP-S2-15-02
D.O. Number:	D.O.#47/#54	Action Memo Date:	
Response Authority:	CERCLA	Response Type:	
Response Lead:	EPA	Incident Category:	
NPL Status:	NPL	Operable Unit:	
Mobilization Date:	2/21/2017	Start Date:	2/21/2017
Demob Date:		Completion Date:	
CERCLIS ID:	NJN000206276	RCRIS ID:	
ERNS No.:		State Notification:	
FPN#:		Reimbursable Account #:	

1.1.1 Incident Category

On-going release of heavy metals into adjacent soil, wetlands and water. The source of the heavy metals are related to the waste created during the recovery of lead from used batteries. The waste is primarily in the form of slag and battery casings. This waste was used as fill in the Margaret's Creek portion of the Site. The presence of this waste has been confirmed and will be removed and disposed off-site. This work is being performed as a Remedial Action pursuant to the Record of Decision (ROD) for the Site.

1.1.2 Site Description

The Margaret's Creek Sector of the Raritan Bay Slag Site is approximately 47-acres of open space consisting of wetland and upland areas. Portions of the upland area is filled with slag and battery casings. The slag was brought to the Site approximately 50 years ago.

1.1.2.1 Location

The Margaret's Creek Sector of the Raritan Bay Slag Site is located between the Laurence Harbor and Cliffwood Beach sections of Old Bridge Township, Middlesex County, New Jersey.

1.1.2.2 Description of Threat

EPA has conducted multiple sampling events at the Site since 2008 under both the removal and remedial programs. The sampling activities included the collection of soil, sediment, water, and waste samples within the Margaret's Creek Sector. Analytical results generated by EPA indicate that significantly elevated levels of lead and other heavy metals are present in the soils and sediment. Analytical results for surface soil samples collected within the Margaret's Creek Sector were as high as: 78,000 mg/kg for lead. Representative samples of the excavated wastes generated during previous mitigation work have exceeded the Resource Conservation and Recovery Act Toxicity Characteristic Leaching Procedure limit for lead (5 mg/l).

1.1.3 Preliminary Remedial Assessment/Remedial Site Inspection Results

Information pertaining to the assessment and Site inspection results can be found in the Record of Decision (ROD) and the Final Design Analysis Report (DAR) for the Site, which are available through the Remedial Project Manager and website established for this Site.

2. Current Activities

2.1 Operations Section

2.1.1 Narrative

The overall approach to this Remedial Action is to remove crushed battery casings, slag and lead-contaminated soil to prevent the direct contact threat to the public and the migration of contaminated materials to adjacent wetlands, and public recreation areas.

As part of this approach, contaminated soil, slag, and debris is being excavated and stockpiled on a 30 mil HDPE impermeable liner. Stockpiled waste material are then screened to remove slag, rocks, and debris larger than 6-inches in size. The screening process results in two waste streams; 1) waste larger than 6-inches consisting primarily of slag and 2) waste less than 6-inches consisting primarily of soil, battery casings and smaller pieces of slag. Slag waste larger than 6-inches cannot be properly stabilized and must be crushed prior to treatment.

2.1.2 Response Actions to Date

Response actions completed prior to November 27, 2017 are described in previous POLREPs for the Site.

The following actions have been completed during this reporting period:

- * Response actions in support of the Remedial Action included delineation soil sampling events for the purpose of defining the horizontal and vertical extent of lead contamination in areas of concern (AOC) identified in the DAR.
- * Clean fill continues to be delivered and ERRS personnel continue to backfill Area H and the former soil staging area.
- * From November 27, 2017 through December 1, 2017, 472.04 tons of hazardous waste (<6-inches), 105.19 tons of slag hazardous waste (D004/D008, >6-inches), 4 one cubic yard boxes of crushed drum carcasses and 2 drums of containerized drum liquids. Both are non-hazardous waste. To date, a total of 14,022.105 tons of hazardous waste (<6-inches), 1,802.44 tons of slag (>6-inches) and 287.42 tons of hazardous waste with non-friable asbestos material have been transported off-site. The removal of all asbestos-containing hazardous waste was completed on November 22, 2017. The removal of all slag (>6-inches) from the Site was completed on November 27, 2017. The total tonnage of hazardous waste (<6-inches) reported in this POLREP has been adjusted based on current disposal documentation.
- * On November 28, 2017, a weekly on-site progress meeting was held with the RPM.
- * On October 26, 2017, approval of an additional 5,000-tons of bank run sand was granted by the RPM. This brings the total approved tonnage to 10,000 for restoring the upland portions of the Site. Use of this material will require an amendment (i.e.-lime) to raise the pH to the 6 to 8 range. Delivery of this material began on October 31, 2017 and continued through the reporting period. To date, approximately 6,000 tons of this material has been delivered to the Site and placed into upland excavations.
- * Perimeter air monitoring, in accordance with the Community Air Monitoring Plan (CAMP), was conducted by Weston Solutions, Inc. Weekly air monitoring summary reports are being provided to EPA and maintained on-site. No significant air exceedances were reported during the work day monitoring periods.
- * On September 6, 2017, 20 representative soil samples of proposed topsoil material were collected at the EME facility located in New Egypt, NJ. The validated analytical results and the mechanical soil testing performed by Rutgers University were provided to the RPM on October 30 and November 9, respectively. 3,000 tons of upland topsoil is scheduled for delivery. However, the material requires pH adjustment prior use on-site.
- * On-site security services continued during non-working Site hours.
- * Personal air monitoring on contractor operators and laborers began on July 20, 2017 and is being conducted by Environmental Restoration, LLC (ER). ER is EPA's emergency and rapid response services (ERRS) contractor for this project. To date, the personal air monitoring results for lead have been below the site-specific action level of 30 microgram per cubic meter ($\mu\text{g}/\text{m}^3$) of air. The OSHA permissible exposure level for lead is 50 $\mu\text{g}/\text{m}^3$.
- * At this time, the project is estimated to be 62% complete.

2.1.3 Enforcement Activities, Identity of Potentially Responsible Parties (PRPs)

Enforcement activities are being managed by the Remedial Program.

2.1.4 Progress Metrics

Stabilization of the waste containing slag less than 6-inches in diameter is being conducted by Clean Earth of New Jersey, Kearny, NJ and transported to Grows North Landfill in Morrisville, PA for disposal. Waste slag greater than 6-inches in diameter is being transported via railcar to Envirosafe Services, Inc. in Oregon, Ohio, where the material is crushed and stabilized prior to disposal in the landfill. Waste containing slag <6-inches and asbestos-containing material was delivered to Republic Environmental System (PA), LLC in Hatfield, PA for stabilization and disposed of at Republic Services-Conestoga Landfill in Morganville, PA for disposal. See Additional sources of information section for waste shipping and disposal information.

2.2 Planning Section

2.2.1 Anticipated activities for the next reporting period

2.2.1.1 Planned Response Activities

- * Continue perimeter air monitoring in accordance with the Community Air Monitoring Plan (CAMP).
- * Completion of excavation activities in AOC-A.
- * Completion of rough backfilling and grading of the soil staging area.
- * Completion of a topographical survey to determine current excavation area grades.
- * Begin the application and tilling of lime to common backfill material to adjust the pH.
- * Delivery of additional supplies and equipment to complete restoration activities.
- * Loading of tires and construction and demolition debris for disposal.
- * Collection of post-excavation soil samples.
- * Complete an evaluation of all post-excavation and delineation soil sample results to insure site remediation goals have been met.

2.2.1.2 Next Steps

- * Preparation of the weekly air monitoring report.
- * Conducting the weekly progress meeting with the RPM.

2.2.2 Issues

- * During remediation activities within AOC-A, battery casing material was observed beyond the Site access gate towards U.S. Highway Route 35. EPA and RST3 conducted a test pit investigation to define the extent of this material

outside of the property fence line. Based on this investigation, battery casings extend to Route 35 and approximately 60 feet east and west of the entrance gate. EPA has contacted NJDOT and Old Bridge Township officials to determine what the right of way limits are adjacent to NJ Route 35. NJDOT has provided EPA with a drawing showing the right-of-way (ROW) along the Route 35 property frontage. A survey to determine the exact limits of the ROW is being scheduled. The decision to excavate this material will be made by the RPM.

* The sequencing of excavation activities has deviated from the Design Analysis Report (DAR). Excavation work will proceed as follows: AOC H, E, U, V, W, S, Q, P, O, F, I, M, N, K, L/Y2, X1, X2, X3, Z and A.

* On September 6, 20 representative soil samples of proposed topsoil material were collected at the EME facility located in New Egypt, NJ. If approved for on-site use by EPA, 3,000 tons of upland topsoil and 2,000 tons of wetlands topsoil will be delivered to the Site. If the topsoil is not approved for use, a replacement source will need to be identified and sampled. The analysis and analytical review timeframe is approximately 45-days from sample collection could delay final restoration of the Site.

* Significant rainfall events may affect operations if the water level in Margaret's Creek rise and back up into the low-lying portions of the Site.

2.3 Logistics Section

No information available at this time.

2.4 Finance Section

2.4.1 Narrative

On September 9, 2016, \$7,000,000 was allocated to the regional Emergency & Rapid Response Services (ERRS) contract for this project. On February 6, 2017, an additional \$6,550,000 was added to the existing funding for the Remedial Action.

Funding for the Removal Support Team (RST) was allocated on October 27, 2016 (\$200,000) and February 6, 2017 (\$450,000).

Project costs shown below are as of November 22, 2017.

Estimated Costs *

	Budgeted	Total To Date	Remaining	% Remaining
Extramural Costs				
ERRS - Cleanup Contractor	\$13,550,000.00	\$3,616,480.62	\$9,933,519.38	73.31%
RST/START	\$650,000.00	\$358,022.34	\$291,977.66	44.92%
Intramural Costs				
Total Site Costs	\$14,200,000.00	\$3,974,502.96	\$10,225,497.04	72.01%

* The above accounting of expenditures is an estimate based on figures known to the OSC at the time this report was written. The OSC does not necessarily receive specific figures on final payments made to any contractor(s). Other financial data which the OSC must rely upon may not be entirely up-to-date. The cost accounting provided in this report does not necessarily represent an exact monetary figure which the government may include in any claim for cost recovery.

2.5 Other Command Staff

2.5.1 Safety Officer

None

2.5.2 Liaison Officer

None

2.5.3 Information Officer

None

3. Participating Entities

3.1 Unified Command

3.2 Cooperating Agencies

: New Jersey Department of Environmental Protection;
: Middlesex County Parks and Recreation;
: Middlesex County Mosquito Commission;
: Middlesex County Utilities Authority;
: Old Bridge Township Municipal Utilities Authority;
: Old Bridge Township Parks and Recreation.

4. Personnel On Site

EPA OSC

EPA RPM

ERRS Contractor (6-7 personnel)

RST 3 Contractor (1-2 personnel)

5. Definition of Terms

Not Applicable

6. Additional sources of information

6.1 Internet location of additional information/report

Not Applicable

6.2 Reporting Schedule

Not Applicable

6.3 Disposal Table

Waste Stream	Medium	Manifest #	Quantity (tons)	Treatment	Disposal Facility
Hazardous Waste	Soil/slag < 6"	017806063JJK	25.52	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806064JJK	26.41	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806065JJK	25.24	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806066JJK	26.55	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806038JJK	27.44	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806039JJK	27.93	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806040JJK	24.59	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806041JJK	25.97	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806042JJK	27.35	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806043JJK	25.61	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806044JJK	24.87	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806045JJK	26.11	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806046JJK	25.76	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806047JJK	24.13	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806048JJK	24.64	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806049JJK	25.73	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806050JJK	24.82	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806051JJK	26.14	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806052JJK	24.59	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806053JJK	24.58	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806055JJK	24.32	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806054JJK	26.7	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806056JJK	23.48	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806057JJK	26.35	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806058JJK	26.87	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806059JJK	22.98	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806060JJK	27.62	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806061JJK	27.52	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806062JJK	24.15	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806069JJK	26.54	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806067JJK	26.57	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806068JJK	26.31	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806070JJK	26.26	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806072JJK	24.97	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806071JJK	24.73	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806073JJK	25.39	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806074JJK	25.04	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806075JJK	25.91	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806076JJK	25.09	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806077JJK	25.48	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806079JJK	25.03	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806078JJK	25.78	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806080JJK	26.17	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806081JJK	28.27	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806082JJK	27.47	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806083JJK	26.61	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806084JJK	27.49	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017869590JJK	24.99	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017869589JJK	26.97	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017869588JJK	24.61	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806087JJK	25.51	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806086JJK	25.82	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806088JJK	27.06	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806089JJK	24.94	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806090JJK	25.38	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806091JJK	27.28	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806092JJK	27.52	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806093JJK	27.24	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017869587JJK	26.18	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806095JJK	23.82	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806097JJK	21.81	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806094JJK	26.22	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806096JJK	20.81	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806098JJK	25.41	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017869586JJK	22.11	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017869585JJK	22.48	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017869559JJK	21.02	Stabilization	Landfill

Hazardous Waste	Slag > 6"	018071798JK	25.94	Stabilization	Landfill
Hazardous Waste	Slag > 6"	018071799JK	28.14	Stabilization	Landfill
Hazardous Waste	Soil with ACM	011519001FLE	20.84	Stabilization	Landfill
Hazardous Waste	Soil with ACM	011518997FLE	23.63	Stabilization	Landfill
Hazardous Waste	Soil with ACM	011518998FLE	22.39	Stabilization	Landfill
Hazardous Waste	Soil with ACM	011518999FLE	21.5	Stabilization	Landfill
Hazardous Waste	Soil with ACM	011519000FLE	20.95	Stabilization	Landfill
Hazardous Waste	Soil with ACM	011518982FLE	22.3	Stabilization	Landfill
Hazardous Waste	Soil with ACM	011518983FLE	22.52	Stabilization	Landfill
Hazardous Waste	Soil with ACM	011518981FLE	21.79	Stabilization	Landfill
Hazardous Waste	Soil with ACM	011518996FLE	23.84	Stabilization	Landfill
Hazardous Waste	Soil with ACM	011518977FLE	21.73	Stabilization	Landfill
Hazardous Waste	Soil with ACM	011518980FLE	23.51	Stabilization	Landfill
Hazardous Waste	Soil with ACM	011519002FLE	20.39	Stabilization	Landfill
Hazardous Waste	Soil with ACM	011518979FLE	22.03	Stabilization	Landfill
Total Tonnage			16111.965		

7. Situational Reference Materials

Not Applicable